REMARKS

Applicant has reviewed the Final Office Action mailed on March 4, 2005 as well as the art cited. Claim 15 is amended to include the limitations of claim 17 and claim 17 is cancelled. As a result, claims 1-16 and 18-30 are currently pending in this application.

Rejections Under 35 U.S.C. § 102

Claims 1, 13, 14 and 21 were rejected under 35 USC § 102(e) as being anticipated by Takla, (U.S. Patent No. 6,044,123). Applicant respectfully traverses this rejection.

Claim 1

Claim 1 is directed to a method for providing a seed frequency for a receive clock. The method includes estimating a frequency of an incoming clock signal, embedding the estimated frequency into a transmitted data stream, capturing the embedded estimated frequency and seeding a control loop of the receive clock with the estimated frequency.

The Examiner asserts that Takla teaches "estimating a frequency ... into a transmitted data stream" (Abstract; Col.1, lines 30-31; Col. 2, lines 16-19; Col. 3, lines 66-67) (where the frequency of the clock embedded in the data signal is predetermined); "capturing the embedded ... estimated frequency" (Abstract; Col. 1, line 40-44; Col. 4, line 4 to Col. 7, line 42).

Applicant has reviewed Takla and finds that Takla does not teach or suggest the method for providing a seed frequency for a receive clock as found in claim 1. In contrast, Takla teaches away from the current invention. Takla is directed to "[t]he invention includes a phase-locked loop with training capability. ... In a training mode, the PLL functions to lock in frequency and phase to a training clock signal of a local oscillator at a frequency at which a data signal is expected to be clocked." Applicant refers the Examiner to the background of the current application page 1, lines 26 – 30 which states "In order to provide a stable condition at the receive end, the receive clock should be synchronized with the transmit clock. Some PLLs use training clocks to get close to the desired frequency for a given startup condition as is known in the art. This, however, requires capture of a sufficient amount of data to allow the system to

slow to the correct data flow rate." The current invention solves problems presented by the use of training clocks. Takla is not providing a seed frequency to the receive clock or seeding a control loop of the receive clock with the estimated frequency as found in claim 1.

As a result, Takla does not anticipate claim 1 and claim 1 should be allowed.

Claims 2-8 depend from and further define allowable claim 1 and should be allowed for at least the reasons provided above with respect to claim 1.

Claim 13

Claim 13 is directed to a method for seeding a frequency of a receive clock. The method includes creating an estimate of a frequency of an incoming clock signal, embedding the estimate in a data stream to be sent to the receive clock, recovering the embedded estimate from the data stream, decoding the estimate and setting an initial phase locked loop range according to the decoded estimate.

The Examiner relies on his assertions with respect to claim 1 and adds that "further, Takla teaches "decoding ... decoded estimate" in Col. 2, line 63 to Col. 3, line 34." Applicant refers the Examiner to the arguments presented above with respect to claim 1 and further that Takla does not teach or suggest decoding the *estimate* and setting an initial phase locked loop range according to the decoded *estimate*. As a result, Takla does not anticipate claim 13 and claim 13 should be allowed.

Claim 14

Claim 14 is directed to a method for adaptively clocking a telecommunications system. The method includes estimating a frequency of an incoming data stream, encoding the estimate of the frequency into network traffic, decoding the estimate at a receive end of the system and seeding the receive end clock with the frequency estimate.

The Examiner relies on his assertions with respect to claim 1. Applicant refers the Examiner to the arguments presented above with respect to claim 1. As a result, Takla does not anticipate claim 14 and claim 14 should also be allowed.

Claim 21

Claim 21 is directed to a logic module. The module includes a clock control module to receive a data signal and a clock signal and a data control module connected to the clock control module to coordinate data flow and to generate a control signal for a receive end.

The Examiner asserts that Takla teaches all the claimed subject matter "a clock control ... receive end" in Figure 2. The Examiner has not indicated what aspects of Figure 2 refer to the limitations of claim 21. Applicant has not found a clock control module and a data control module to generate a control signal for a receive end as found in claim 21. The Examiner has not addressed the Applicant's above issue but states that "Figure 2 of Takla is an improvement of the prior art of Figure 1 where the PLL of Figure 2 provides a more accurate recovered clock for use in recovering the received data (i.e. see Figure 1). Applicant respectfully notes that neither of these Figures nor the specification discuss a clock control module and a data control module to coordinate data flow and to generate a control signal for a receive end as found in claim 21. As a result, Takla does not teach or suggest the logic module of claim 21 and claim 21 should be allowed.

Claim 15 was rejected under 35 USC § 102(e) as being anticipated by Van der Putten et al., (U.S. Patent No. 6,072,810). Claim 15 has been amended to include the limitations of claim 17. As a result, the Examiner's rejection is now moot.

Claim 15

Claim 15 as amended is directed to a telecommunications system. The system includes a transmit end with an incoming data frequency estimator, a receive end with an estimate recovery module and a data path therebetween for transmitting data and a frequency estimate of the data. The receive end includes system interface logic to receive network traffic, logic to recover a frequency estimate and data from the network traffic, a buffer to hold output data and a clock recovery circuit to decode the frequency estimate. The Examiner states that "these claimed subject matter would have been obvious to one skilled in the art" but provides no basis for this assertion. Applicant respectfully traverses the Examiner's assertion and requests that the Examiner cite a reference in support of his position in accordance with MPEP § 2144.03.

As a result, amended claim 15 should be allowed.

Rejections Under 35 U.S.C. § 103

Claims 3-8, 19, 20, 22-24 and 26-30 were rejected under 35 USC § 103(a) as being unpatentable over Takal. Applicant respectfully traverses these rejections.

Claims 3-8 depend from and further define allowable claim 1 and for at least the reasons provided above should also be allowed. Applicant respectfully traverses the Examiner's assertion that the limitations of claims 3-8 would have been optional for one skilled in the art. Since the Applicant believes claims 3-8 are allowable for at least the above reasons, Applicant may not have put forth responses to additional rejections to said claims at this time. However, the Applicant reserves the right to address said additional rejections to said claims if a further response is required.

Claim 19

Claim 19 is directed to a transmitter. The transmitter includes a protocol interface module to receive a data input, a frequency estimator connected to the protocol interface module, an encoder connected to the frequency estimator and to the protocol interface to encode data and a frequency estimate into a network data stream and interface logic to transmit the data stream.

The Examiner relies on his assertions with respect to claim 1 and further asserts that "a protocol interface" would have been obvious to one skilled in the art. Applicant does not find that "a protocol interface to encode data and a frequency estimate into a network data stream and interface" as found in claim 19 is obvious. Applicant respectfully traverses the Examiner's assertion and further, Applicant refers the Examiner to the arguments presented above with respect to claim 1.

Claim 20 depends from and further defines allowable claim 19 and for at least the reasons provided above should also be allowed. Since the Applicant believes, claim 19 is allowable for at least the above reasons Applicant may not have put forth responses to additional rejections to said claims at this time. However, the Applicant reserves the right to address said additional rejections to said claims if a further response is required.

Claims 22-24 depend from and further define allowable claim 21. Since the Applicant believes, claims 22-24 are allowable for at least the above reasons Applicant may not have put forth responses to additional rejections to said claims at this time. However, the Applicant reserve0s the right to address said additional rejections to said claims if a further response is required.

Claims 26-28 depend from and further define allowable claim 25. Since the Applicant believes, claims 26-28 are allowable for at least the above reasons and below Applicant may not have put forth responses to additional rejections to said claims at this time. However, the Applicant reserves the right to address said additional rejections to said claims if a further response is required.

Claim 29

Claim 29 is directed to a receiver. The receiver includes a protocol interface module to receive network traffic containing an embedded frequency estimate, asynchronous transfer mode (ATM) logic connected to the protocol interface module to recover embedded frequency estimate data from the network traffic, a buffer connected to the ATM logic to receive the data and determination logic to receive the estimation data and to recover the frequency estimate.

The Examiner refers to the rejection of claim 16-17 but still provides no basis for these rejections.

Claims 16-18 and 25 were rejected under 35 USC § 103(a) as being unpatentable over Van der Putten et al., (U.S. Patent No. 6,072,810). Applicant respectfully traverses this rejection.

The Examiner has provided no basis for his rejection of claims 16-18, 25 and 29-30 other than the claimed subject matter would have been "obviously obvious" to one skilled in the art. Applicant respectfully traverses this and requests that the Examiner cite a reference in support of his position with respect to claims 16-18, 25 and 29-30 in accordance with MPEP § 2144.03. The Examiner has not addressed this request put forth in the previous response.

Claim 2 was rejected under 35 USC § 103(a) as being unpatentable over Takla, (U.S. Patent No. 6,044,123) in view of Guo (U.S. Patent No. 5,400,370). Applicant respectfully traverses this rejection.

Claim 2 depends from allowable claim 1. Since the Applicant believes, claim 1 is allowable for at least the above reasons. Applicant may not have put forth responses to additional rejections to said claims at this time. However, the Applicant reserves the right to address said additional rejections to said claims if a further response is required.

Allowable Subject Matter

Applicant thanks the Examiner for the indication that claims 9-12 are allowable over the art.

CONCLUSION

Applicant respectfully submits that claims 1-15 and 17-30 are in condition for allowance and notification to that effect is earnestly requested. If necessary, please charge any additional fees or credit overpayments to Deposit Account No. 502432.

If the Examiner has any questions or concerns regarding this application, please contact the undersigned at 612-455-1685.

Respectfully submitted,

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